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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,738	04/26/2005	Marcus Burge	2002P16717WOUS	9005
7590 Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830			EXAMINER WONG, JOSEPH D	
			ART UNIT 2168	PAPER NUMBER
			MAIL DATE 11/01/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/532,738

Applicant(s)

BURGEL ET AL.

Examiner

Joseph D. Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 Apr 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 August 2007 has been entered.

Response to Arguments

Rejections under 35 USC 101 for claims 21-24 are withdrawn. Rejections under 35 USC 101 for claims 8-20 are maintained. Claim 8 is addressed to software per se which is not a statutory category of invention and lacks the requirement for tangibility.

Applicant's arguments with respect to the prior art rejections of 35 USC 103 have been carefully considered yet are deemed not persuasive.

The allegation that "Cheyer explicitly teaches away from providing a uniformly understood network of objects with respect to the plurality of distinct software application" is interpreted to be mere argument omits a specific citation. The argument proceeds to incorrectly characterize the reference of Cheyer by reciting what Cheyer must do without a formal citation. The argument is viewed to ambiguously refer to the whole reference because the allegation is not directed to the most appropriate line specific portion of Cheyer. Mere difference in principle of operation and structural and/or operational relationship between Cheyer and Williams is an

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incorrect threshold for determining nonobviousness. Cheyer specifically discloses broad flexibility within Col. 4, Lines 50-65:

“a highly flexible, software-based architecture for constructing distributed systems. The architecture supports cooperative task completion by flexible, dynamic configurations of autonomous electronic agents. Communication and cooperation between agents are brokered by one or more facilitators which are responsible for matching requests from users and agents....relatively minimal effort is involved in incorporating new agents wrapping legacy applications”.

Absent evidence to the contrary the Examiner interprets that highly flexible to mean that Cheyer is open to being used to being used as improvement with Williams. Accordingly, this argument for nonobviousness is viewed in a non-persuasive light.

The argument refers to a uniformly understood network not a uniformly understood object. This disagreement arises because there is confusion over whether the “uniformly understood” modifies the network or object. The broadest reasonable interpretation is that it can cover either or both.

Simple recitation of case law of *In re Gordon*, is deemed not convincing because it is not analyzed to show that its fact pattern more closely matches and how also how it would be more contemporaneous than what is cited within Examination Guidelines.

Instant Remarks, P. 11, 2nd paragraph points to a different embodiment and/or construction of Cheyer than what the Examiner has relied upon. The argument that “no translation is needed since the uniformly understood network of objects is free of the one or more incompatible data exchange structures” is not commensurate with instant claim 8 because the instant claim does not recite the negative limitation of “no translation is needed” and the instant claim recites the term “freed” instead of “free” thus raising doubt whether the incompatible data structure is separate or merely deallocated or absent. The instant argument asserts a “teaching

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away” argument without justifying with line specific citations that every embodiment teaches away. Mere selection of an alternative embodiment over another does not constitute a teaching away as alleged.

The arguments allege an error in previous Office Action on P. 12, first paragraph of the instant remarks while omitting a citation. The instant arguments are silent with respect to Cheyer disclosing multiple embodiments and flexibilities. This Office Action rebuts that Cheyer offers multiple embodiments leaving the Examiner free to substitute the “highly flexible software architecture” of Cheyer as discussed in Col. 4, Lines 50-55 and to choose a less rigid embodiment than Applicant has argued when applying the secondary reference. The arguments do not demonstrate why every embodiment available in Cheyer must behave as argued. The alleged teaching away standard appears incorrect in that it cannot be a simple alternative or disparaged as inferior—it must be explicit. If Cheyer supplies translation, this merely augments a comprising claim rather than teaches away because there the claim does not positively preclude a translating intermediary as argued.

Accordingly, all prior rejections are maintained.

Claim Objections

Claim 8 is objected to under 37 CFR 1.75 because it recites the limitation "the object – based system" however the preamble has been amended to “computer-based system” making unclear whether the wherein clauses invoking a processor are limiting because they are

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predicated upon an object-based system not a computer-based system. There is insufficient antecedent basis for this limitation in the claim. This objection is necessitated by amendment.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 8-20 rejected for being directed towards nonstatutory subject matter.

Claim 8 is directed to a system consisting of software per se because no physical article is positively recited within the body of the claims. Software per se is not one of the four categories of invention and therefore claims 9-19 are not statutory. Software per se is not a series of steps or acts and thus is not a process. Software per se is not a physical article or object and as such is not a machine or manufacture. Software per se is not a combination of substances and therefore is not a composition of matter. This clarification to the rejection was necessitated by Applicant's amendment. Claims 9-20 are rejected as depending from claim 8.

The claimed subject matter does not positively recite a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for structuring, storing and processing of data.

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Applicants can look to MPEP 2106.01-2106.02, 707.06 (August 2006), Interim Guidelines, Instant Specification, and contemporary case law with a matching fact pattern for further suggestions that may be helpful in overcoming these rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

• **Claims 8-9, 12-13, 15-17, 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams, US Patent 6,591,272 B1, filed 22 Feb. 2000 in view of Cheyer et al., US Patent 6,859,931 B1, filed 17 Mar 1999, hereinafter Cheyer.**

• Regarding claim 8, Williams teaches system for structuring (interpreted to include "ORGANIZATION", Col. 91, Lines 55), storing (interpreted to include "inserts", Col. 60, Lines 40-45) and processing of computer-readable data in accordance with a generic object model (Fig. 5), wherein the object model has at least one first element which corresponds to a type object (Fig. 4), wherein the type object (Fig. 4-5) comprises the following attributes (Fig. 14): a unique identification of an object of the type Object for absolute referencing of the object (interpreted to include "CustomerID", Fig. 14), a logical name for labeling the object (interpreted to include

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“Base Object Name”, Fig. 14), and at least one link to a second element (interpreted to include “SalesPersonID”, Fig. 14), which corresponds to a type Feature (interpreted to include “Employee_ID”, Fig. 15), wherein the type Feature comprises the following attributes: a unique name in relation to the object (interpreted to include “Base Object Name”, Fig. 15), and the option of linkage to further components of the type Object (interpreted to include “ManagerID”, Fig. 15), to further components of the type Feature (interpreted to include “Employee_ID”, Fig. 15), and to data (interpreted to include “LAST_NAME”, Fig. 15).

Williams does not explicitly teach an object-based system for structuring, storing, and processing of computer-readable data from a plurality of distinct software applications, said computer-readable data comprising hierarchically structured data set objects stored in at least one object database, said computer-readable data subject to one or more incompatible data exchange structures in the plurality of distinct software applications, said data to be changed between the plurality of distinct software applications in accordance with a generic object model.

However, Cheyer teaches an object-based (Title) system for structuring, storing, and processing of data from a plurality of distinct software applications (Fig. 3, items 310, 320), said data comprising hierarchically structured data set objects stored in at least one object database (Fig. 7, items 704, 706, 720), said data subject to one or more incompatible data exchange structures (interpreted to include “protocol incompatible with the ICL by one of the components”, Claim 11) in the plurality of distinct software applications (Fig. 3, items 310, 320), said data to be changed between the plurality of distinct software applications in accordance with a generic object model. (Col. 22, Lines 44-65; Col. 23, Lines 1-15)

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Williams and Cheyer are analogous art pertinent to the problem to be solved. A skilled artisan would have been motivated to extend the teachings of Williams with Cheyer because it greatly expands the flexibility and capabilities of the distributed agent community as discussed in the abstract of Cheyer.

Therefore at the time of invention, it would have been obvious to a person having ordinary skill in the art to combine the teachings of Williams with Cheyer because it greatly expands the flexibility and capabilities of the distributed agent community as suggested in the abstract of Cheyer.

Regarding claim 9, Williams teaches the system in accordance, wherein the type Object has as further attributes an identification of the object type (Fig. 14) and an identification of the version of the object. (Col. 10, Lines 44-45)

Regarding claim 12, Williams teaches the system in accordance, wherein the elements of the object are linked by references. (Col. 11, Line 45; Col. 26, Line 20)

Regarding claim 13, Williams teaches the system in accordance, wherein the elements of the object are linked by references. (Col. 11, Line 45; Col. 53, Lines 5-15)

Regarding claim 15, Williams teaches the system in accordance, wherein the object model is described by an extensible markup language. (interpreted to include "XML", Col. 9, Lines 22-23)

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Regarding claim 16, Williams teaches the system in accordance, wherein the object model is described by an extensible markup language. (interpreted to include “XML”, Col. 9, Lines 22-23)

Regarding claim 17, Williams teaches the system in accordance, wherein the object model is described by an extensible markup language. (interpreted to include “XML”, Col. 9, Lines 22-23)

Regarding claim 19, Williams teaches the system in accordance, wherein the object model is described by an extensible markup language. (interpreted to include “XML”, Col. 9, Lines 22-23)

Regarding claim 20, Williams teaches the system in accordance with claim 8, wherein the system is part of an engineering system of an automation system. (Col. 9, Lines 23-24, Lines 37-38; Col. 12, Lines 43-45)

Regarding claim 21, Williams teaches a method for structuring (interpreted to include “ORGANIZATION”, Col. 91, Lines 55), storing (interpreted to include “inserts”, Col. 60, Lines 40-45) and processing data in accordance with a generic object model (Fig. 5), wherein the object model has at least one first element corresponding to the type Object (Fig. 4-5), wherein the type Object (Fig. 4-5) comprises the following attributes (Fig. 14): a unique identification of an object of the type Object for absolute referencing (interpreted to include the “primary key”,

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Col. 12, Line 58) of the object (interpreted to include "CustomerID", Fig. 14), a logical name for labeling the object (interpreted to include "Base Object Name", Fig. 14), and at least one link to a second element (interpreted to include "SalesPersonID", Fig. 14), which corresponds to a type Feature (interpreted to include "Employee_ID", Fig. 15), the method comprising: assigning a unique identification (interpreted to include "Employee_ID", Fig. 15) to an instance of the type Object for absolute referencing the instance (interpreted to include "Base Object Name", Fig. 15); assigning a logical name for labeling the instance (interpreted to include "BaseObject", Col. 53, Line 30); and linking the instance to the second element (interpreted to include "DEPARTMENT_ID", Col. 60, Lines 50-55), wherein the type Feature comprising the following attributes: a unique name in relation to the relevant linked object referenced, and the option of linkage to further components of the type Object (interpreted to include "JOB_ID", Col. 60, Lines 55-60), to further components of the type Feature (interpreted to include "LOCATION_ID", Col. 60, Lines 50-65), and to data (interpreted to include "HIRE_DATE", Col. 60, Lines 50-65).

Williams does not explicitly teach an object-based system for structuring, storing, and processing of data from a plurality of distinct software applications, said data comprising hierarchically structured data set objects stored in at least one object database, said data subject to one or more incompatible data exchange structures in the plurality of distinct software applications, said data to be changed between the plurality of distinct software applications in accordance with a generic object model.

However, Cheyer teaches an object-based (Title) system for structuring, storing, and processing of data from a plurality of distinct software applications (Fig. 3, items 310, 320), said

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data comprising hierarchically structured data set objects stored in at least one object database (Fig. 7, items 704, 706, 720), said data subject to one or more incompatible data exchange structures (interpreted to include “protocol incompatible with the ICL by one of the components”, Claim 11) in the plurality of distinct software applications (Fig. 3, items 310, 320), said data to be changed between the plurality of distinct software applications in accordance with a generic object model. (Col. 22, Lines 44-65; Col. 23, Lines 1-15)

Regarding claim 22, Williams teaches the method in accordance, wherein the data are structured (Col. 91, Lines 55), stored (Col. 60, Lines 40-45), and processed for engineering an automation system. (Col. 9, Lines 23-24, Lines 37-38; Col. 12, Lines 43-45)

Regarding claim 23, Williams teaches a method for structuring, storing and processing of data in accordance with a generic object model (Fig. 5), wherein the object model has at least one first element which corresponds to the type Object (Fig. 4-5), the method comprising: providing a unique identification of an object of the type Object for absolute referencing (interpreted to include the “primary key”, Col. 12, Line 58) of the object (interpreted to include “CustomerID”, Fig. 14); providing a logical name for labeling the object (interpreted to include “Base Object Name”, Fig. 14); and linking the object to a second element (interpreted to include “SalesPersonID”, Fig. 14), which corresponds to a type Feature (interpreted to include “Employee_ID”, Fig. 15), wherein the type Feature (interpreted to include “Employee_ID”, Fig. 15) comprising: a unique name in relation to the linked object (interpreted to include “Base Object Name”, Fig. 15), and the option of linkage to further components of type Object

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(interpreted to include "JOB_ID", Col. 60, Lines 55-60), to further components of type Feature (interpreted to include "LOCATION_ID", Col. 60, Lines 50-65) and to data (interpreted to include "HIRE_DATE", Col. 60, Lines 50-65).

Williams does not explicitly teach an object-based system for structuring, storing, and processing of data from a plurality of distinct software applications, said data comprising hierarchically structured data set objects stored in at least one object database, said data subject to one or more incompatible data exchange structures in the plurality of distinct software applications, said data to be changed between the plurality of distinct software applications in accordance with a generic object model.

However, Cheyer teaches an object-based (Title) system for structuring, storing, and processing of data from a plurality of distinct software applications (Fig. 3, items 310, 320), said data comprising hierarchically structured data set objects stored in at least one object database (Fig. 7, items 704, 706, 720), said data subject to one or more incompatible data exchange structures (interpreted to include "protocol incompatible with the ICL by one of the components", Claim 11) in the plurality of distinct software applications (Fig. 3, items 310, 320), said data to be changed between the plurality of distinct software applications in accordance with a generic object model. (Col. 22, Lines 44-65; Col. 23, Lines 1-15)

Regarding claim 24, Williams teaches the method in accordance, wherein the data are structured (Col. 91, Lines 55), stored (Col. 60, Lines 40-45), and processed (Fig. 3, item 34) for engineering an automation system. (Col. 9, Lines 23-24, Lines 37-38; Col. 12, Lines 43-45)

Claims 10, 11, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams, US Patent 6,591,272 B1, filed 22 Feb. 2000 in view of Cheyer et al., US Patent 6,859,931 B1, filed 17 Mar 1999, hereinafter Cheyer as applied to claim 8 in view of Devarakonda et al., US Pre-Grant Pub. No/ 2003/0225801 A1, filed 31 May 2002, hereinafter Devarakonda.

Regarding claims 10 and 11, Williams teaches the system in accordance, wherein elements linked by an element of type Feature. (Fig. 2, 4)

Williams does not explicitly teach form a logical subset of all elements of an object. However, Devarakonda teaches form a logical subset of all elements of an object. [0035]

Williams in view of Cheyer and Devarakonda are analogous art. A skilled artisan would have been motivated to adapt the data structure...“with requirements for storing data” as discussed in the abstract of Devarakonda.

Therefore at the time of invention, it would have been obvious to a person having ordinary skill in the art to combine the teachings of Williams in view of Cheyer and Devarakonda to adapt the data structure with requirements for storing data as suggested in the abstract of Devarakonda.

Regarding claim 14, Williams teaches the system in accordance, wherein the elements of the object are linked by references. (Col. 11, Line 45; Col. 52, Lines 62-67; Col. 53, Lines 5-15)
See remarks under claim 10.

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Regarding claim 18, Williams teaches the system in accordance, wherein the object model is described by an extensible markup language. (interpreted to include "XML", Col. 9, Lines 22-23)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Wong whose telephone number is 571-270-1015. The examiner can normally be reached on Mon.-Thur. 8:30AM - 6:00PM and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim T. Vo can be reached on (571) 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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22 October 2007



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